rather than just the advertiser's home page, will presumably be more useful to the user. For example, a large Website may have different Web pages for different products and/or services. As another example, a large Website might have different Web pages for different languages.

[0069] The granularity with which query information is associated with document information may be application specific. For example, associating query information with domain information might make sense for smaller Websites with few pages, often with related information, such as a local dry cleaner for example. On the other hand associating query information with individual Web pages might make sense for larger Websites (such as Amazon.com, or Wal-mart.com for example) offering a large number of different products and services. Some Websites offer a large number of diverse products, such as books, consumer electronics, and power tools. In one exemplary embodiment, a document (e.g., Web page) count threshold of a Website might be used to determine the level of granularity to use (e.g., per domain, per document, etc.) for a given domain (e.g., Website). Alternatively, or in addition, concept clustering may be used to determine the level of granularity to use. For example, the number of distinct concepts a Website covers, and perhaps how far apart those concepts are may be considered. In such an embodiment, for Websites having Web pages that concern a number of very different concepts, the query information may be associated with the document information with a finer level of granularity. On the other hand, for Websites having Web pages that only concern one topic or just a few very closely related topics, the query information may be associated with the document information with a more coarse level of granularity. In at least some embodiments consistent with the present invention, whether or not Web pages of a Website concern closely related concepts might be inferred from the link structure topology (e.g., a straight tree, a mesh, etc.) of the Website. Alternatively, or in addition, the level of granularity used may be a function of the specificity of the query and how a concept of the query matches the concepts of Web pages of the Website (e.g., Web pages to "appliances", "kitchen appliances", "toaster ovens" and Black & Decker Model 500 Toaster Oven").

§ 4.2.4 Exemplary Apparatus

[0070] **FIG. 10** is high-level block diagram of a machine **1000** that may perform one or more of the operations discussed above. The machine **1000** may include one or more processors **1010**, one or more input/output interface units **1030**, one or more storage devices **1020**, and one or more system buses and/or networks **1040** for facilitating the communication of information among the coupled elements. One or more input devices **1032** and one or more output devices **1034** may be coupled with the one or more input/output interfaces **1030**.

[0071] The one or more processors **1010** may execute machine-executable instructions (e.g., C or C++ running on the Solaris operating system available from Sun Microsystems Inc. of Palo Alto, Calif. or the Linux operating system widely available from a number of vendors such as Red Hat, Inc. of Durham, N.C.) to perform one or more aspects of the present invention. At least a portion of the machine executable instructions may be stored (temporarily or more permanently) on the one or more storage devices **1020** and/or may be received from an external source via one or more input interface units **1030**.

[0072] In one embodiment, the machine **1000** may be one or more conventional personal computers. In this case, the processing units **1010** may be one or more microprocessors. The bus **1040** may include a system bus. The storage devices **1020** may include system memory, such as read only memory (ROM) and/or random access memory (RAM). The storage devices **1020** may also include a hard disk drive for reading from and writing to a hard disk, a magnetic disk drive for reading from or writing to a (e.g., removable) magnetic disk, and an optical disk drive for reading from or writing to a removable (magneto-) optical disk such as a compact disk or other (magneto-) optical media.

[0073] A user may enter commands and information into the personal computer through input devices **1032**, such as a keyboard and pointing device (e.g., a mouse) for example. Other input devices such as a microphone, a joystick, a game pad, a satellite dish, a scanner, or the like, may also (or alternatively) be included. These and other input devices are often connected to the processing unit(s) **1010** through an appropriate interface **1030** coupled to the system bus **1040**. The output devices **1034** may include a monitor or other type of display device, which may also be connected to the system bus **1040** via an appropriate interface. In addition to (or instead of) the monitor, the personal computer may include other (peripheral) output devices (not shown), such as speakers and printers for example.

[0074] The various operations described above may be performed by one or more machines **1000**, and the various information described above may be stored on one or more machines **1000**.

§ 4.3 Examples of Operations

[0075] **FIGS. 11A-11D** provide an example which illustrates various operations of an exemplary embodiment of the present invention. **FIG. 11A** illustrates a Website **1100**, including a home page **1110** with a unique identifier (e.g., URL) ABC. The home page **1110** includes a number of links **1115** to other Web pages **1120**, **1130**, etc. Web pages **1120** and **1130** have unique identifiers ABC/D and ABC/E, respectively. In this example, documents include Web pages **1110**, **1120**, **1130**, etc., document identifiers include URLs ABC, ABC/D, ABC/E, etc., the domain may be the home page **1110**, and the domain identifier may be URL ABC.

[0076] **FIG. 11B** illustrates a search query **1140** and selected document/domain to query term/phrase associations **1150** that may be generated if Web page **1120** is selected from a search result list generated by the search query **1140**. More specifically, suppose that query **1140** is "honda accord ex" and that after being presented with one or more search results, the user that submitted the query selects Web page **1120**. The information **1150** may include an identifier of Web page **1120**, such as the URL ABC/D for example, an identifier of a domain **1110** to which the Web page **1120** belongs, such as URL ABC for example, and one or mores or phrases from the search query **1140**, such as "honda,""accord,""ex,""honda accord,""accord ex," and "honda accord ex." Note that in many cases, the domain identifier may be a truncation of the document identifier. For example, the URL ABC is a truncation of the URL ABC/D. Thus, if a domain identifier might be derivable from a document identifier. If so, it might not be desirable to store both in some embodiments.